

Attorney Docket No. MSU 4.1-541
Appl. No. 09/761,143
Amdt. Dated: August 20, 2007
Reply to Office Action of May 30, 2007

REMARKS

Claims 1, 3-6, 15-18, 27-30 and 34 are pending.

No claims are allowed.

Claims 1 and 27 have been amended to call for a "lyophilized" mixture as in Examples 1 and 2. This is not suggested in any of the prior art. Claims 15-18 were rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants' regard as the invention. Claim 15 has been corrected as suggested. Reconsideration is requested.

Claims 1-6 were rejected based upon obviousness-type double patenting. Enclosed is the required Terminal Disclaimer over Claims 1-15 of U.S. Patent No. 6,818,234, which obviates this rejection. Reconsideration is requested.

Claims 1-6 were rejected based upon obviousness-type double patenting over Claims 1-8 of U.S. Patent No. 6,194,469. Enclosed is the required Terminal Disclaimer which obviates this rejection. Reconsideration is requested.

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Claims 1-6 were rejected based upon obviousness-type double patenting over Claims 1-8 of U.S. Patent No. 6,676,978. Enclosed is the required Terminal Disclaimer which obviates this rejection. Reconsideration is requested.

Claims 1, 3-6, 27-30 and 34 were rejected under 35 USC 103(a) as being unpatentable over Gryglewski et al. (1987) in view of Lietti et al. (GB 1,589,294), in view of Hellberg et al. (U.S. Patent No. 5,691,360). Hellberg et al. does not describe compounds which are even remotely structurally or chemically related to anthocyanins or anthocyanidins. The complete paragraph reads as follows:

"The preferred antioxidant moieties in the compounds of formula (I) and formula (II) are phenolic compounds. The antioxidant activity of these compounds is thought to reside in their ability to react with free radicals and therefore terminate radical chain reactions. The reaction of these phenolic compounds with peroxy free radicals in biological systems is particularly important. The phenoxyl radicals formed by the reaction of a free radical with a phenol are resonance stabilized and typically do not continue the chain reaction. In biological systems, the parent phenol from phenolic antioxidants such as α -tocopherol (vitamin E) can be regenerated from the phenoxyl free radical by vitamin C and/or glutathione (GSH), thereby providing a way to complete the detoxification process. See *Free Radical Biology & Medicine*, volume 15, pages 311-328 (1993).

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The antioxidant activity of the phenolic compounds is enhanced by stabilizing the phenoxyl free radical or by facilitating the transfer of the free radical to other components of the detoxification mechanism, such as GSH or vitamin C. Alkyl substituents stabilize the phenoxyl free radical by electron donation and the steric bulk of ortho substituents reduces the propensity of the phenoxyl radical to participate in free radical chain reactions".

There is no way that conclusions in relation to Compounds I or II of the Hellberg et al. patent could be used by one skilled in the art to deduce anything about the claimed invention. This is nothing more than an attempted hindsight reconstruction of the claimed invention from Applicants' own disclosure and is not supported by the facts. The Nair Declaration Under 37 CFR 1.132 filed in this application clearly shows that the problem is the loss of the anthocyanins to hydrolysis. This has nothing to do with the compounds of Hellberg et al. The combination rejection clearly is incorrect.

Lietti et al. does not support the combination rejection. The reference teaches only cyanidin as a useful product and hydrolyzes the anthocyanins to obtain the cyanidin. Nothing suggests the claimed compositions,

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since Lietti et al. would hydrolyze them away before use, thus "teaching away" from the claimed invention.

Gryglewski et al. does not show any particular activity for cyanidol (cyanidin). There is no disclosure which relates to the claimed compositions.

Thus, the claimed composition is not suggested in any way from the prior art. There is no possibility of a "*prima facie*" obviousness rejection. There is no suggestion in any way of adding a food grade acid to the claimed composition. Reconsideration of this rejection is requested.

Claims 1, 3-6, 15-18, 27-30 and 34 were rejected under 35 USC 103(a) as being unpatentable over Gryglewski et al. (1987), in view of Lietti et al. (GB 1,589,294), in view of Hellberg et al. (U.S. Patent No. 5,691,360), and in view of Brenner et al. (U.S. Patent No. 5,462,932). The Brenner et al. reference relates to alendronate to promote bone growth. The compound has nothing to do with Applicants' invention. Again, the rejection is based upon a hindsight reconstruction of the invention using Applicants' own disclosure. The structures and chemicals are completely different. There

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is no basis for a *prima facie* rejection. Reconsideration of this rejection is requested.

One skilled in the art would not add a food grade acid to a composition which has anthocyanins which are hydrolyzable. Based upon the prior art, one would conclude that this would cause the anthocyanins to be hydrolyzed. The invention claimed is specific in claiming a lyophilized mixture with the food grade acid. The references do not suggest this invention in any way.

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It is now believed that Claims 1, 3-6, 15-18,
27-30 and 34 are in condition for allowance. Notice of
Allowance is requested.

Respectfully



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Enclosures: Terminal Disclaimers (3)